

NanoSPECT/MRI: a “new generation” high performance tool in pre-clinical imaging

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Abstract Body:

PreClinical Imaging it is an each-day evolving field, getting more and more important at distinct areas. The Biotechnology field is between those that taken the biggest benefit.

With so much interest, it is not surprising that investment consented on Research and Development is also evolving at the same time that this specific branch of business into the Imaging Industry is getting more and more attention and growing in importance.

Hybrid Imaging is also getting more and more interest in the last decade and actually there are different vendors proposing interesting technical solutions, making things easier for one that has the possibilities – and the knowledge about each will be the most adequate for the specific purpose on each situation! – to choose one (or more) of those solutions.

This paper relates with the public presentation of images produced from the world first model of a new pre-clinical imaging system, an new equipment that mixes Nuclear Medicine and MRI Magnetic Resonance Imaging techniques, using as base the sub-millimeter Nano-SPECT (Single Photon Emission Computed Tomography), so an high-level performance system – the world reference, produced by MEDISO Company, in Hungary - from Nuclear Medicine and a new MRI component, optimized for Neurosciences, but able to perform adequately on other critical biological fields.

As practical example from the possibilities being introduced, images from mice, which are being enrolled on a Neuroscience project, will be showed and will be discussed, but also will be compared with other images being produced on other, actually more current, technical solutions, in order to try to demonstrate the advantages and disadvantages of this specific new approach.

Since this small – quick and unpretentious – comparison will be done, it is meant to make possible understanding the place and the real possibilities of this equipment, which it is

expected to become available on the world market between the end of this year and the 1st Quarter from next year.

Foi decidido que não será apresentada a versão integral deste documento.

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